ABSTRACT OF THE DISCLOSURE

Disclosed are bi-specific complexes aimed at inhibiting mast cells, eosinophils and/or basophils, and thus, at inhibiting allergy-type reactions. In particular, said complexes are best exemplified by bi-specific antibodies, which bind to two targets present in the same cell. One target is the inhibitory receptor IRp60. The second target is a cell-specific activator, e.g. IgE, cKIT, FceRI, IL5R or CCR3. Binding of the bi-specific antibody to its targets results in the induction of an inhibitory pathway, through the inhibition of the signaling from the activator. Compositions and uses of the bi-specific complexes are also described.